OMB Control No. #0693-0033 – NIST Generic Clearance for Program Evaluation Data Collections Expiration Date 06/30/2019

National Institute of Standards and Technology (NIST) Food and Nutrition Standard Reference Materials (SRMs) Customer Questionnaire

FOUR STANDARD SURVEY QUESTIONS

1. Explain who will be surveyed and why the group is appropriate to survey.

A questionnaire was developed for customers of food and nutrition Standard Reference Materials (SRMs), which are provided by the Chemical Sciences Division (CSD) of the Material Measurements Laboratory (MML) at the National Institute of Standards and Technology (NIST).

The food and nutrition SRM program provides matrix-matched control materials for use in method development and quality assurance to support nutrition labeling regulations. The current catalog of SRMs contains over 40 food and dietary supplement materials with over 1400 assigned values for various vitamins, elements, fatty acids, and contaminants. Materials are selected and designed based on their fat, protein, and carbohydrate profile to provide customers with a wide arrangement of possible materials.

The CSD is currently performing needs- and impact-assessments for many of its programs and services. Internal assessments have been made by the Technical Project Leaders (TPLs) of the various reference materials, and all agree that the SRM program has some potential limitations that should be addressed. Over the past 10 years, a number of "total nutrient" reference materials have been released, with a wide variety of assigned values. While this allows customers to purchase a single material for a number of tests, the resources required within CSD to prepare these total nutrient materials is extensive. Organized customer feedback is necessary to ascertain which of these values are most useful to customers and also what types of additional materials or values are needed. This information will allow CSD to focus future renewal and production efforts more appropriately.

Once SRMs are sold, very little quantitative feedback is gathered regarding how the materials are being used by the industry. The main sources of feedback are conversations between customers and CSD staff (via email, at scientific meetings, etc.) and formal complaints. Much of the information gathered in this way is only representative of a small fraction of CSD customers. Rather than speculate on the community's needs and whether these needs align with the CSD's research interests and goals, a questionnaire has been developed for customers of food and nutrition SRMs. The questionnaire has two intentions: 1) to identify assigned values that are of most importance to customers and 2) to monitor and support the emerging measurement needs of the food and nutrition community with the goal of expanding the potential research areas and hence impact of the SRM program.

2. Explain how the survey was developed including consultation with interested parties, pre-testing, and responses to suggestions for improvement.

The questionnaire was developed by the program coordinators for food and nutrition. The program coordinators have over 45 years of combined experience preparing and characterizing of reference materials for the food and nutrition communities, and have maintained positive, collegial relationships with a variety of customers. Therefore, the program coordinators are well qualified to construct a questionnaire to meet the intentions described in Question #1. The questionnaire was also reviewed by the other CSD staff members with interest in food and nutrition reference materials. Suggestions for improvement were incorporated into the questionnaire during each iteration of internal review and testing.

3. Explain how the survey will be conducted, how customers will be sampled if fewer than all customers will be surveyed, expected response rate, and actions your agency plans to take to improve the response rate.

Customers who have purchased food and nutrition reference materials will receive an email inviting them to participate in the survey. The text of the email will read as follows:

"Dear Colleagues,

NIST is conducting a survey of recent customers to better design SRM products in the future. You are receiving this questionnaire as a customer of NIST who has purchased at least one unit of <SRM Name and Number> in the past 5 years. The questionnaire is available and can be accessed by using the direct link below:

<URL to be determined>

We greatly appreciate your feedback and request your participation in this questionnaire by <**month, day, year**>. If you have any questions regarding the questionnaire, please don't hesitate to ask by responding to this email.

Sincerely,

Melissa Phillips, Program Coordinator for Food SRMs (Organic Constituents) Kate Rimmer, Program Coordinator for Dietary Supplement SRMs (Organic Constituents) Laura Wood, Program Coordinator for Food and Dietary Supplement SRMs (Inorganic Constituents)"

The email requesting feedback via the questionnaire will be sent to customers of each SRM (ranging from 1 to 212 individuals per SRM, for a total of approximately 2300 inquiries for all 50 SRMs). The program coordinators intend to gather feedback for one SRM approximately every month, beginning with SRMs with the highest sales and/or the greatest perceived impact.

We anticipate a 10 % to 20 % response rate to the questionnaire, and periodic emails will be sent to the participants as a reminder to participate and to provide feedback.

As written, the collection instrument includes every possible response for all 50 SRMs to be surveyed. The program coordinators intend to modify this list by removing any sections or options that are not relevant to the particular SRM being queried, based on the values assigned in that material (per the SRM Certificate of Analysis, published on <u>www.nist.gov/srm</u>). Tailoring the list for each SRM by only including relevant parameters will make the list more concise and clear for the customers, and prevent any misconceptions by customers about the intended use of a particular SRM.

4. Describe how the results of the survey will be analyzed and used to generalize the results to the entire customer population.

The questionnaire will be conducted through a commercially available web interface (e.g., SurveyMonkey), and the responses will be collected into a database. The program coordinators will have access to the database containing the responses. Since the collection instrument contains some open-ended questions, a wide-range of responses may be received that will not be easily generalized to the participant population. In addition, the results from the questionnaire are intended to guide future SRM development activities, and therefore will not be formally reported. The program coordinators will review the individual responses to assess:

- the approximate percentage of respondents indicating that current assigned values are/are not of value to their laboratory. If, for example, the majority of SRM customers indicate that the value for aluminum is not of value to their laboratories, we may consider aluminum to be unnecessary on future SRMs. Future customers inquiring about values for aluminum would be notified that aluminum values were not assigned based on the feedback received in the questionnaire.
- 2) if there are any predominant trends in the responses to the open-ended questions. If, for example, several of the respondents express an interest in a cannabis SRM, we may design and prepare a material to address this measurement challenge.
- 3) the subset of participants who are interested in food safety and contaminants, who may then be invited specifically to participate in value assignment of future materials where CSD has limited capabilities.
- 4) the subset of participants who are interested in dietary supplements, who may then be invited specifically to participate in the Health Assessment Measurements Quality Assurance Program, an ongoing effort in CSD.